

U.S. Patent Application Serial No. 10/528,137
Response to OA dated October 2, 2008

REMARKS

Claims 1, 3, 4 and 18 are amended in order to more particularly point out, and distinctly claim the subject matter which the Applicants regard as their invention. New Claims 21-28 are added. Regarding the new claims, Claim 21 is an independent claim on the basis of simplified Claim 4, moreover each of the composing elements is defined more obviously; Claim 22 has the same content as Claim 5, and depends on Claim 21; a basis of Claim 23 is the present specification at page 11, lines 21-23; a basis of Claim 24 is the present specification at page 11, lines 27-30; Claim 25 has the same content as Claim 6, and depends on Claim 21; Claim 26 has the same content as Claim 7, and depends on Claim 21; a basis of Claim 27 is the present specification at page 11, lines 12-29; and Claim 28 has the same content as Claim 8, and depends on Claim 21. The Applicants respectfully submit that no new matter has been added. Claims 2 and 6 are cancelled without prejudice or disclaimer. It is believed that this Amendment is fully responsive to the Office Action dated October 2, 2008.

In the Office Action, Claims 1-8 and 18 were rejected under 35 U.S.C. §103(a) as being unpatentable over Fujita et al. (U.S. Patent No. 6,238,488); and Claims 1-3 and 18 were rejected under 35 U.S.C. §103(a) as being unpatentable over Yamamoto (U.S. Patent No. 6,187,102). Reconsideration and removal of these rejections are respectfully requested in view of the present claim amendments and the following remarks.

In order to overcome the present rejections, Applicants have defined the "small chamber" and

U.S. Patent Application Serial No. 10/528,137
Response to OA dated October 2, 2008

the "flow outlet" more clearly in order to more clearly define where the flow outlets for the first and second gas flows are disposed relative to the "small chamber" and the "flow outlet".

Accordingly, Claims 1 and 18 have been amended to include the features of Claim 2 and Claim 6.

Fujita et al. discloses a seal cap (28) and a cover (18) which form a small chamber and feed lines (36, 38) corresponding to a feed opening. However, the feed line (38) contains the flow outlet. It is respectfully submitted that Fujita et al. fails to teach or suggest "a flow outlet formed by a clearance between the cover and the inner wall surface of the reaction furnace, for making the first gas supplied to the small chamber flow into the reaction furnace, and a feed opening provided further downstream than the flow outlet, for supplying a second gas that is more active to the seal cap than the first gas into the reaction furnace" as claimed in Claims 1 and 18.

Further, in Fujita et al., a cleaning gas is supplied from the feed line (38), and an inert gas is supplied from the feed line (36). At this time, the cleaning gas contacts the seal cap (28). Even if the gases supplied from the feed line (36) and the feed line (38), respectively, are changed with each other, the cleaning gas is supplied inside the small chamber due to the structure, so that the contact of the cleaning gas with seal cap (28) cannot be prevented. Thus, it is respectfully submitted that Fujita et al. cannot obtain the effect of Claims 1 and 18.

Further, Yamamoto discloses a seal cap (lid member 24) and a cover (the base of the insulating cylinder 25) which form a small chamber. To the contrary of the present invention of Claims 1 and 18, in Yamamoto, feed lines (29) and (5) corresponding to the feed opening do not face

U.S. Patent Application Serial No. 10/528,137
Response to OA dated October 2, 2008

the small chamber.

Further, as described in the Office Action, feed lines (29) and (5) contain the flow outlet in Yamamoto. It is respectfully submitted that Yamamoto fails to provide "a flow outlet formed by a clearance between the cover and the inner wall surface of the reaction furnace, for making the first gas supplied to the small chamber flow into the reaction furnace, and a feed opening provided further downstream than the flow outlet, for supplying a second gas that is more active to the seal cap than the first gas into the reaction furnace" as claimed in Claims 1 and 18. Yamamoto fails to teach or suggest this feature.

With reference to Claims 2 and 8, these claims depend from Claim 1 which is discussed above.

With reference to Claim 21, neither Fujita et al. nor Yamamoto teach or suggest "a base flange for supporting the inlet flange, a cover installed inside the base flange separately from the seal cap so as to cover approximately the entire surface of the seal cap facing the inner side of the reaction furnace, a small chamber formed by a space enclosed by the seal cap and the cover and the inner wall surface of the base flange, a feed opening facing the small chamber for supplying a first gas that is inert to the seal cap into the small chamber, a flow outlet formed by a clearance between the cover and the inner wall surface of the base flange, for making the first gas supplied to the small chamber flow into the reaction furnace, and a feed opening provided further downstream than the flow outlet, for supplying a second gas that is more active to the seal cap than the first gas into the reaction furnace" as claimed in Claim 21. Thus, it is respectfully submitted that Fujita et al. cannot

U.S. Patent Application Serial No. 10/528,137
Response to OA dated October 2, 2008

obtain the effect of Claim 21.

In view of the amendments to Claims 1, 3, 4 and 18, and the above remarks, removal of this rejection is respectfully requested.

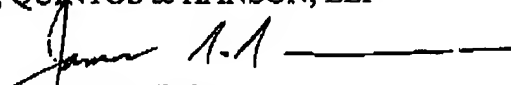
In view of the aforementioned amendments and accompanying remarks, Claims 1-8 and 18, as amended, are believed to be patentable and in condition for allowance, which action, at an early date, is requested.

If, for any reason, it is felt that this application is not now in condition for allowance, the Examiner is requested to contact the Applicants' undersigned attorney at the telephone number indicated below to arrange for an interview to expedite the disposition of this case.

In the event that this paper is not timely filed, the Applicants respectfully petition for an appropriate extension of time. Please charge any fees for such an extension of time and any other fees which may be due with respect to this paper, to Deposit Account No. 01-2340.

Respectfully submitted,

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